

# STZ Series SPD

Surge-Trap®

**SURGE PROTECTIVE DEVICE**

**NEMA DEVICES FOR ANSI/UL 1449  
TYPE 1 AND 2 APPLICATIONS**



The Surge-Trap® Type 1 STZ Series is Mersen's premium-featured surge option to be installed at service entrance locations and for protection of the most critical loads. Designed with industry leading Mersen TPMOV® Technology, the STZ series is ideal for industrial and commercial environments. The STZ series has mounting options (internal and external/in enclosure) suitable for both new construction and retrofit applications.

Technical Data Overview	
Surge Current Rating (Imax)	100, 200, 300, 450kA
Nominal discharge current (In) (8x20 µs)	20kA
Short Circuit Current Rating (SCCR)	200kA
Nominal power frequency	50-60 Hz
Mounting	- Externally Mounted Panel - Internally Mounted for Panel integration
Enclosure Options	NEMA 1 / 12 / 3R / 4 / 4X Stainless Steel
EMI/RFI Filter	Up to -50dB from 10kHz to 100MHz
Wiring	Wire Lugs for 6-10 AWG copper
Degree of Protection	IP 20 (finger-safe)
Flammability	UL94-5VA
Operating & Storage Temperature	- 40°F [40°C] to + 185°F [85°C]
Visual Status Indicator flag	Green = 67 to 100% Life Yellow = 34 to 66% Life Red = 0 to 33% Life
Remote Status Indicator	Form C Dry Contacts

## FEATURES/BENEFITS

- Type 1 SPD which can be installed on the line or load side of the service entrance for facility-wide protection.
- The field replaceable SPD module can be mounted in any orientation to reduce lead length and optimize performance.
- Standard features include LED phase loss indication, EMI/RFI filter, surge counter with reset, dry contacts and audible alarm with silence button
- Available with or without disconnect switch
- Up to 10 Modes of Protection (L-N, L-L, L-G, N-G)
- 15-year warranty

## APPLICATIONS

- Service Entrance Locations
- OEM's Automatic Transfer Switch panel integration
- Switchboards
- Datacenters
- Any critical application that requires a high level of protection

## APPROVALS/STANDARDS

- ANSI/UL 1449 5th Edition, Type 1 SPD, File E210793
- CSA C22.2, Type 1 SPD, File xyz
- ANSI/IEEE C62.41.1, C62.41.2, C62.45
- UL96A Lightning Protection
- RoHS Compliant



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## PART NUMBER SELECTOR

Don't see what you need? Please contact Technical Services.

STZ	480Y	30	B	1	T
Model Series	Voltage and System Configuration	Surge Capacity	Standard Features	Enclosure	Disconnect Switch
STZ	<b>240S:</b> 240/120V Split <b>208Y:</b> 208/120V WYE <b>480Y:</b> 480/277V WYE <b>240D:</b> 240V DELTA <b>480D:</b> 480V DELTA & HRG WYE	<b>10:</b> 100kA <b>20:</b> 200kA <b>30:</b> 300kA <b>45:</b> 450kA <sup>(1)</sup>	LED Status Indicators Phase Loss Indication Audible Alarm Form C Dry Contacts EMI/RFI Filter Surge Counter	<b>1:</b> NEMA 1/12/3R/4 <b>X:</b> NEMA 4X <b>Q:</b> Field-replaceable module <b>R:</b> Without enclosure for internal mounting	<b>BLANK:</b> None <b>T:</b> UL 98 switch with door mounted handle on enclosed units <sup>(2)</sup> <b>U:</b> UL 98 switch with shaft and door mountable switch handle for internally mounted units

Example Part Number:

**STZ 480Y 20 B 1 T**

(1) 450kA Surge Capacity not available for 480D voltage configuration.

(2) Dimensions of the enclosure for disconnect switch with door mounted handle are different; see dimensions below.

## Option "R" for Internal Mounting



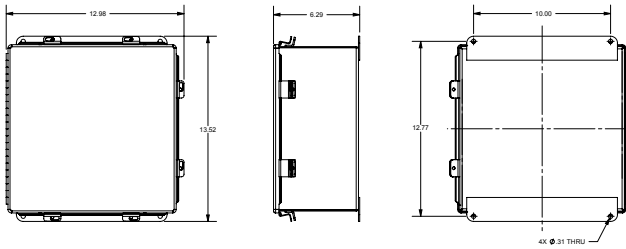
## VOLTAGE SPECIFICATIONS

Part Number	System Voltage and Configuration	Maximum Continuous Operating Voltage (MCOV, U <sub>c</sub> )				ANSI/UL 1449 5th Edition voltage protection ratings - VPR							
		L-N	L-G	L-L	N-G	Without Integral Switch				With Integral Switch [T]			
		L-N	L-G	L-L	N-G	L-N	L-G	L-L	N-G	L-N	L-G	L-L	N-G
STZ240S__B [1 or X]__	240/120V Split Phase	150	150	300	150	700	700	1000	700	700	700	1000	700
STZ208Y__B [1 or X]__	208/120V 3-Phase WYE	150	150	300	150	700	700	1000	700	700	700	1000	700
STZ480Y__B [1 or X]__	480/277V 3-Phase WYE	320	320	640	150	1200	1200	2000	700	1200	1200	2000	700
STZ240D__B [1 or X]__	240V 3-Phase DELTA	-	320	640	-	-	1200	2000	-	-	1200	2000	-
STZ480D__B [1 or X]__	480V 3-Phase DELTA & HRG WYE	-	550	1100	-	-	1800	3000	-	-	1800	3000	-
STZ240S__B [0 or R]__	240/120V Split Phase	150	150	276	150	700	700	1000	600	800	900	1200	700
STZ208Y__B [0 or R]__	208/120V 3-Phase WYE	150	150	276	150	700	700	1000	600	800	900	1200	800
STZ480Y__B [0 or R]__	480/277V 3-Phase WYE	320	320	552	150	1200	1200	2000	600	1200	1200	2000	800
STZ240D__B [0 or R]__	240V 3-Phase DELTA	-	320	320	-	-	1200	2000	-	-	1200	2500	-
STZ480D__B [0 or R]__	480V 3-Phase DELTA & HRG WYE	-	552	552	-	-	1800	4000	-	-	1800	4000	-

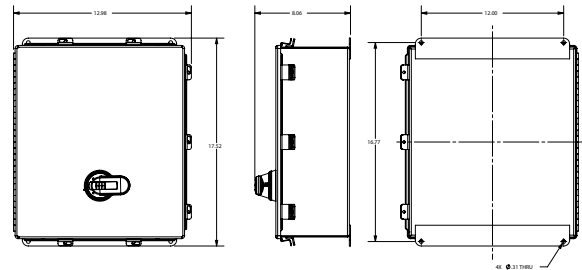
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## DIMENSIONS AND MOUNTING CONFIGURATIONS

### ENCLOSURE OPTIONS 1 or X - External Mounting

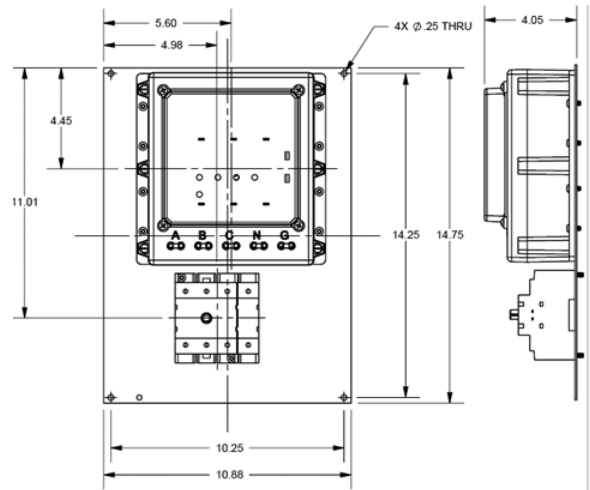
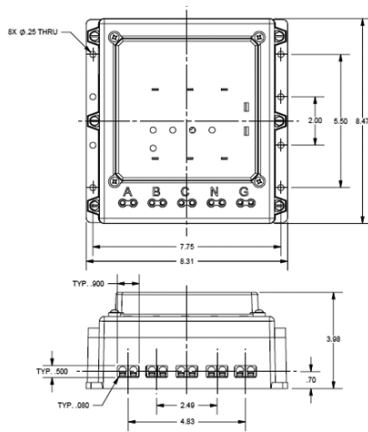


Without Disconnect Switch



With Disconnect Switch

### ENCLOSURE OPTIONS R - Field-replaceable Module



### ENCLOSURE OPTIONS Q - Field-replaceable Module

